



Project Team

Congestion Relief & Bus Rapid Transit Projects

APPENDIX E17

WSDOT CONSTRUCTION COMPLIANCE PROCEDURES (MARCH 2005)

I-405, SR520 to SR522 Stage 1 (Kirkland Stage 1)

Draft RFP
March 22, 2005



**Washington State
Department of Transportation**



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Department of Transportation

Construction Compliance Procedures

March 1, 2005

1 Introduction

1.0 What purpose do these Construction Compliance procedures serve?

The purpose of these procedures is to reduce incidents of noncompliance by anticipating situations that could result in a non-compliance event and implement preventative solutions.

As an agency, WSDOT is committed to being a good environmental steward. We want to design and build our projects to minimize the effects to the environment. While we generally have done this well, there have been incidents statewide where we did not comply with permit conditions, and fines were issued. Several of these incidents could have been avoided. These procedures will help us identify and avoid potential issues before they become violations.

Our environmental staff will work together with engineers and construction personnel proactively to identify potential issues early, taking positive action before any violation can occur. The Urban Corridors and Northwest Regional offices (hereafter referred to as the Regions) worked together to develop these procedures.

With these procedures, we will:

- Improve and maintain a high level of permit compliance on our projects.
- Have no permit violations that result in fines from the resource agencies.

- Continue to reduce the severity of permit violations each year by improving our compliance strategies.
- Create and implement tools that clearly communicate WSDOT's compliance responsibilities.
- Provide flexibility, learn from our mistakes, and update the plan to reflect our new understanding.

1.1 How is WSDOT meeting our responsibilities?

To support WSDOT's responsibilities and undertakings, we will:

- Work to implement and maintain an environmental management system that embraces all of our functions.
- Establish, maintain and make available to the public performance indicators that measure our environmental stewardship. Consistently review these indicators to improve our performance.
- Comply with all environmental laws and regulations applicable to our business and activities.
- Assure that employees receive training appropriate to their functions and our environmental responsibilities.
- Communicate environmental management practices and compliance requirements to contractors, designers, consultants and others we hire to support our work.
- Encourage employees and all other citizens to communicate with us about ways to improve our environmental stewardship.
- Make every reasonable effort to protect the cultural and historic resources of the state.

1.2 How are these procedures organized?

This handbook is divided into five chapters:

1. Introduction
2. Goals and Objectives
3. Roles and Responsibilities
4. Training and Awareness
5. Standard and Developing Procedures
6. Performance Measures

There are also six appendices that contain either more detailed or related information.

1.3 What if we have ideas to improve these strategies?

We encourage comments and suggestions. We will review and incorporate the best suggestions into our compliance plan annually. For comments and suggestions contact:

Urban Corridors Office:

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Northwest Region:

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2 Goals and Strategies

2.0 What are our compliance goals?

The purpose of these goals and strategies is simple – we want, as much as humanly possible, to eliminate our non-compliance events. To that end, we have only two primary goals:

- To comply with all applicable laws and regulations, and;
- To eliminate non-compliance events caused by human error.

To eliminate human error we will have to make sure we have taken advantage of all of our opportunities to avoid violations (there are some things we cannot predict – earthquakes and floods for example). We will have to work to anticipate potential non-compliance situations in advance, and avoid non-compliance by finding solutions in advance.

2.1 How long will it take to accomplish our goals?

With these procedures in place, we expect to reduce the severity and number of violations related to human error substantially over the next two years. As compared to 2004, in 2005, we expect to have 90 percent fewer violations caused by human error. Between 2005 and 2007, we will work to eliminate all violations related to human error.

2.1 What strategies will we use to achieve our goals?

We have outlined several strategies we feel will enable us to reach our goals. The chapters that follow provide details as to how these strategies will be carried out.

Briefly, our key strategies are to:

Improve Training and Awareness

We will expand Project Inspectors' training curriculum to include more environmental compliance topics. We will develop and expand awareness through efforts that parallel our safety program.

Clarify Roles and Responsibilities

We will clarify roles and responsibilities for jobs expressly created to ensure compliance. We will design these jobs with overlapping duties to catch potential problems that otherwise might go unchecked.

Facilitate Communication

We will increase compliance planning opportunities for upcoming construction work. An example of this is to have environmental compliance specialists play an active part in pre-activity meetings with the contractor.

Improve Contract Documents

We will improve the way permit conditions are incorporated into our contract documents and consistently incorporate them into contract documents. We will also ensure that constructability reviews are completed and that all permit conditions in our contracts are clear and measurable.

Measure Our Performance

We will monitor and measure key activities essential to compliance, report our performance and develop recommendations to improve compliance.

Management Review

Management will annually review our compliance and consider recommendations to improve our procedures.

3 Roles and Responsibilities

3.0 What is my role in compliance assurance?

Each and every one of us is responsible for environmental compliance, though it may not be our primary job. Because we all bear some responsibility for compliance, we need to know who to call if we see something that doesn't look quite right. To that end, in this chapter we have identified roles, responsibilities and reporting relationships.

3.1 Who are the key players and what are their roles?

While we are all responsible for compliance, there are four people who have key roles. These are:

- The **Project Inspector** who assures that staff and contractors carry out contract and permit conditions on the front line.
- The **Environmental Compliance Assurance Inspector** (ECAI) who reviews sites as necessary to ensure that each project complies with the contract and permits.
- The **Environmental Technical Advisor** (ETA) who serves as a resource to the Environmental Compliance Assurance Inspector and the Project Inspector to help interpret permit conditions, assess work coverage under the permits and determine appropriate work methods in and around sensitive areas.

- The **Permit Coordinator** who secures the original permits for the project and revisions needed to address changed conditions or omissions.

3.2 Are there positions devoted to permit compliance?

There are two new positions in the Regions: Environmental Compliance Assurance Inspector and Environmental Technical Advisor (ETA). These positions were created to provide greater overlap and assurance that we are meeting our permit obligations in the field. They also provide a dedicated resource for construction offices.

Environmental Compliance Assurance Inspector (ECAI)

The **ECAI** is assigned multiple construction sites and will spend time at each assigned site as individual project circumstances dictate. The number of projects assigned will depend upon the size and complexity of the projects, the activities underway, and the environmental sensitivity of the sites.

The **ECAI** will serve as a resource for the Project Inspector. They will review the site with the Project Inspector to ensure that current and upcoming elements are consistent with permit conditions and proper notifications are made to resource agencies.

Environmental Technical Advisor (ETA)

The **ETA** is a resource to both the ECAI and Project Inspector. They will help interpret permit conditions or decide if a work method is allowed under current permit conditions. The **ETA** responds to questions or concerns about permits, project impacts, or construction methods. The **ETA** will get involved in the project early in the design phase and will review permit applications, mitigation plans, 90 percent PS&E, and permit conditions. These reviews will focus on consistency

between documents and construction activities and environmental conditions and regulatory requirements.

The **ETA** will also conduct constructability reviews of projects. The review will entail whether or not the permit conditions are clear, measurable and complete in the contract document. The constructability review will occur during the scheduled review periods as set by the Design Project Engineer.

Work performed by the ECAI and ETA will supplement rather than replace the work of the Project Inspector and the Permit Coordinator.

4 Training and Awareness

4.0 What do we want to accomplish with training and awareness?

The objectives of these programs are to expand, improve and update staff knowledge and raise awareness of environmental compliance issues so that:

- WSDOT and our contractors learn to recognize potential problems and effectively work with regulators to avoid violations.
- Construction inspectors can confidently ensure compliance from the beginning to the end of a project.
- Construction personnel and contractor staff have a mutual understanding of what to do and who to contact when a violation occurs.
- We have improved intra-agency coordination on environmental issues.

4.1 What training opportunities exist?

Currently, we provide several environmentally related training opportunities that would benefit field personnel and support the Secretary's Environmental Policy. These are:

- Temporary Erosion and Sedimentation Control Certification
- Spill Prevention and Response

- Wetlands Recognition, Regulations and Resource Value
- Environmental Permit Overview
- Environmental Compliance for Inspectors
- Cultural Resources Training

To obtain course descriptions and current required trainings for WSDOT staff go to

www.wsdot.wa.gov/hr/TrainingSchedule

4.2 Will any training be tailored to specific projects?

In addition to classroom training, the project's Environmental Technical Advisor and Permit Coordinator will provide construction office and contractor personnel an overview of the permit requirements and allowable work methods in sensitive areas. This will be done for all construction projects. The overview will include department instructional letters pertaining to the environment. This overview will take place at the project site and prior to the start of major construction operations.

Just prior to the start of work activities within sensitive areas such as streams and wetlands, the Environmental Technical Advisor will again offer construction office personnel an overview of the permit requirements and allowable work methods for work in sensitive areas.

The Environmental Technical Advisor will recommend to the Project Engineer that we hold a separate environmental meeting shortly after the pre-construction meeting for:

- Construction projects with a contract value over one million dollars and involving resources such as wetlands and streams
- Projects on a case-by-case basis should concern for the natural resources warrant it

4.3 What new training will be offered?

Headquarters is developing the curriculum for new courses, including *Environmental Compliance for Construction Inspectors*. This class is intended to help construction inspectors identify:

- environmental issues associated with construction projects
- permit terminology and conditions
- environmental commitments
- examples of BMPs
- notification procedures
- standard specifications

The course is scheduled to be ready by April 2005 and will be offered every year.

4.4 Will there be other changes?

The Region Environmental Offices will work with construction trainers to integrate environmental aspects into inspection training modules. This will augment planned environmental training and provide inspectors with greater continuity between engineering and environmental obligations.

The Region Environmental Offices will develop environmental subjects of the month to help foster discussion about compliance at monthly safety and staff meetings. Representatives from the Region Environmental Office should attend these meetings.

The Region Environmental Office will work with the Headquarters Environmental Services Office to expand current training and awareness programs and develop new programs as compliance needs dictate and resources allow.

4.5 How will I know I need to take certain training?

The Region Environmental Office will work with Headquarters Staff Development to add existing and new classes to training matrices for engineering series classifications Transportation Technician 1 through Transportation Engineer 3.

Annually, the Region Environmental Office will publicize training opportunities by:

- sending an e-mail to all project offices
- publishing information in the Blue Bulletin and on the Region intranet news page
- using existing training management systems, currently ATMS

Every effort will be made to schedule classes outside the construction season when inspectors need to be on site. We do not wish to divert staff from project sites to attend classes.

4.6 Who should attend the training?

All construction personnel in the engineering series classifications Transportation Technician 1 through Transportation Engineer 3 should attend the training courses outlined above.

5 Standard and Developing Practices

5.0 What practices and tools will we employ?

We will employ several different practices and tools to help ensure compliance with the project permits. These include:

Project environmental notebook

The project environmental notebook is a reference containing important environmental compliance related information for a project. The Permit Coordinator in the Region Environmental Office will create a notebook for each project during final PS&E review. The project office is encouraged to keep a copy of the notebook on site at all times.

The notebooks will contain for the following information:

- The Permit Compliance Audit Checklist for Environmental Technical Advisor field audits.
- All environmentally related Instructional Letters. This includes IL 4055.xx Environmental Compliance Assurance Procedures for Construction Projects and Activities.
- List of people and contact numbers at the Regional Environmental Office and resource agencies, including emergency contacts.
- Protocol for addressing emergency situations.
- A copy of each of the permits for the project and the terms and conditions from the Biological Opinion.

- A list of the environmental commitments made on the project.
- A list of dates and conditions for advanced notification to resource agencies for construction activities.
- Construction Procedures for Discovery of Archaeological and Historical Objects from the Environmental Procedures Manual.

Pre-construction meetings

The Region Permit Coordinator, Environmental Technical Advisor and the Environmental Compliance Assurance Inspector will attend the project's pre-construction meeting when permits impose conditions. The Permit Coordinator may request the Project Engineer invite the appropriate regulatory agencies if the project has or is adjacent to substantial natural resources.

In addition to the Pre-Construction meeting, the Permit Coordinator, Environmental Technical Advisor or the Environmental Compliance Assurance Inspector may recommend that the Project Engineer have a follow up meeting dedicated to environmental issues. The recommendation should be based on the project's potential to substantially impact natural resources should a problem arise.

Site visits

The Environmental Compliance Assurance Inspector will visit each project site at least once during construction and will periodically visit construction sites to ensure compliance with the contract and permit conditions. The exact frequency of these visits will depend on the level of activity, weather, environmental conditions, etc.

Project audits

The Environmental Technical Advisor will conduct periodic audits of construction projects. The audits are intended to help assess the effectiveness of our compliance strategies and determine where we may need to make improvements. Results of the audits will be

submitted to region management once a year and will include recommendations for improvement.

Project debriefings

At times project teams may violate environmental policies or laws. When this happens, the Environmental Technical Advisor may initiate a project debriefing. The outcome of the debriefing will be to find the root cause of the violation and develop recommendations to management to prevent recurrence.

Timing of Permit Acquisition

We will schedule the acquisition of all permits for two weeks prior to the beginning of final PS&E review. This will allow for constructability reviews of permit conditions and that these conditions can be incorporated into the plans.

Incorporating Environmental Permit Requirements into Plans and Specifications

A multi-disciplinary team has developed a set of recommendations outlining how we will improve inclusion of permit conditions in our contract documents.

The committee's recommendations include:

- Surveying for environmental resources and clearing limits
- Construction staking and data needs
- Constructability elements at 30, 60, 90 and 100% PS&E reviews
- Construction office review of draft and final permit conditions

The committee report is in Appendix D. Except for the contents of the project environmental notebook, the recommendations set forth in the document are adopted in total into this environmental management system.

5.1 What other changes are under way?

When complete, the commitments tracking system will be used to track all formal commitments made from project inception through maintenance or their retirement.

The system will allow staff to retrieve, recode, modify, and query project commitments. In addition, the system will allow users to formally hand off responsibility for a commitment from one manager to another (e.g. Design Project Engineer to Construction Project Engineer).

6 Performance Measures

6.0 How will we know we are successful?

Ultimately, we demonstrate our success when we comply with all applicable laws and regulations and eliminate environmental violations caused by human error. We feel we can reach these goals by:

- Increasing training and awareness of environmental elements in construction
- Clarifying roles and responsibilities among various staff key to compliance
- Facilitating communication by increasing environmental specialists participation in construction operations
- Improving how permit conditions are conveyed and natural resources are shown in our contract documents

6.1 What level of performance do we need to reach in each of these areas?

Here are the performance standards we hope to achieve by January 31, 2006:

Increase training and awareness of environmental elements in construction

1. Have 50 percent of all field staff in construction offices and at least one person on each construction project complete the following training as detailed in Section 3.2:

- Temporary erosion and sedimentation control certification
 - Spill prevention and response
 - Wetlands recognition, regulations and resource value
 - Environmental permit overview
 - Environmental compliance for inspectors
 - Cultural resources training
2. Have 100 percent of construction offices include environmental topics in monthly safety/staff meetings beginning June 1, 2005.
 3. Have a representative from the Region Environmental Office attend monthly safety/staff meetings to answer questions and listen to concerns in at least 50 percent of construction offices by June 1, 2005.
 4. Ensure that 100 percent of construction offices receive compliance awareness posters and bookmarks by June 1, 2005.

Clarify roles and responsibilities among various staff key to compliance

Achieve a consensus among Project Engineers, Engineering Managers and the Region Environmental Office as to the roles and responsibilities of Project Inspectors, Environmental Compliance Assurance Inspectors, Environmental Technical Advisors, and the Permit Coordinator.

Facilitate communication through the increase of environmental specialists participation in construction operations

1. By June 1, 2005, have 100 percent of pre-construction meetings attended by an Environmental Technical Advisor.
2. In November, conduct an annual survey of construction Project Engineers to determine their overall satisfaction with the Environmental

Technical Advisors and Environmental Compliance Assurance Inspectors work.

3. Ensure that 90 percent of construction projects comply with all 14 questions on the permit compliance audit checklist.

Improve how permit conditions are conveyed and natural resources are shown in our contract documents

1. Fully implement the recommendations from the document entitled, *Incorporating Environmental Permit Requirements into Plans and Specifications*
2. In November, conduct an annual survey of construction Project Engineers to determine their overall satisfaction with how permit conditions are conveyed and natural resources are shown in our contract documents.
3. Hold a debriefing on 100 percent of projects having a violation that leads to the issuance of a Notice of Violation, monetary penalty or requires an increase in project mitigation. Identify the root causes of the violation, and implement strategies to address the cause.

6.2 How will we make improvements to our procedures?

The Regional Environmental Offices will report every January to regional management, describing the results of our performance. In addition, the Regional Environmental Office will report the:

- Number of preventable violations
- Number of all violations
- Root cause for each of the violations, and
- Recommendations for improvements to our procedures.

